

REQUEST FOR RECONSIDERATION UNDER 37 C.F.R. § 1.111
APPLICATION NO. 09/399,682
ATTORNEY DOCKET NO. A8009

receiving a request for data at a federated data source; and

from the federated data source, retrieving data from:

one or more terminal data repositories,
one or more other federated data sources, and
one or more search gateway data sources;

In making this rejection, the Examiner asserted that Subramaniam teaches all of the foregoing at the passage from column 3, line 65 to column 4, line 26, and also at column 8, lines 15-43.

Applicant notes with interest that the Subramaniam reference uses the terms "data repositories," "federated," and "gateway". A Subramaniam data repository may be read on "terminal data repository". In Subramaniam, a "federated" search is one that simultaneously queries more than one data repository (see column 8 line 34). In Subramaniam, however, the term "gateway" is used only in the sense of a gateway program (see column 2, lines 62-67):

The informatics management system includes a gateway program running on the server. The gateway program receives a query request or a command request in a first format from the user over the network. The gateway program includes a query translator and/or a command translator routine that translates the request from the first format to a plurality of different formats. The translated query
...

The foregoing are just mentioned so that the distinctions between Subramaniam and the subject matter of independent claim 1 can be clarified. Applicant now undertakes to describe, at a high level, the Subramaniam approach.

In Subramaniam, the goal is to provide a way for a user to query several data repositories without having to know how to query them, and without having to know about the structure of the repositories. That is to say, the goal in Subramaniam is to realize a federated search with

minimal user effort. The ability to perform a federated search on a variety of data repositories makes the collection of data repositories, in effect, something that could be read as a federated data source.

To accomplish this goal, Subramaniam suggests the creation of an informatics management system, and an embodiment of Subramaniam's approach is shown in general in Subramaniam's Fig. 1. A very important part of such a system, according to Subramaniam, is a gateway program. The Subramaniam gateway program is really the centerpiece of the system. The Subramaniam gateway program takes data requests on behalf of the federation of data repositories.

The data requests are received via user input screens. Examples of such screens are shown in Figs. 5a-c. In Fig. 5a the user tells the gateway the individual databases to be queried. When the user picks the databases to be queried, the gateway program figures out how these databases can be queried based on the return types (i.e., numeric, text, or the like) and query types:

An appropriate federation of the databases' return types and query types are computed, and a query-builder form is returned to the user (FIG. 5B).

(see column 8, lines 23-26). It should be noted that as used in Subramaniam, "appropriate federation" does not refer to a different set of datastores. It refers to a collection of data query *return types and query types*. Even if the "appropriate federation" is thought of as representing the collection of datastores¹ such a collection is really just a subset of the datastores that could be selected from those already in the federation. Such a collection could not reasonably be taken for a separate federation.

¹ Such a characterization would be technically inaccurate, but is discussed here for the sake of analytical rigor.

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In Fig. 5b, the user tells the gateway the search terms to be used. The gateway farms the query out to each of the databases that were picked by the user. Fig. 5c shows the results returned to the user.

Thus, in Subramaniam, there is only the teaching of a federated datastore that is capable of simultaneously querying more than one terminal data repository. The "gateway" of Subramaniam is nothing more than the software component of the federation that performs the query management and translation.

Claim 1, however, requires:

receiving a request for data at a federated
data source; and

from the federated data source, retrieving
data from:

one or more terminal data repositories,

one or more other federated data
sources, and

one or more search gateway data
sources;

In Subramaniam, a request is received at the informatics management system, and data is retrieved from one or more terminal data repositories. Subramaniam, however, does not teach or suggest retrieving data from any other federated data sources at all. This distinction alone is enough to overcome the anticipation rejection.

Moreover, Subramaniam does not contain any teaching or suggestion of retrieving data from any search gateway *data sources*. There is no search gateway data source in Subramaniam, just a search gateway program. It would naturally be impermissible for the Examiner to read the Subramaniam gateway as the federated data source and, at the same time, as the one or more search gateway data sources. Simple claim construction prohibits such a reading, as does the

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requirement for "*from the federated data source*, retrieving data from" the various mentioned other data repositories and sources.

Having discussed the embodiment in Subramaniam's Fig. 1, Applicant now turns to the embodiment in Subramaniam's Fig. 14. The Examiner indicated Fig. 14 of Subramaniam as being highly relevant to the subject matter of claim 1.

Fig. 14 shows an alternative embodiment. In Subramaniam's Fig. 14, there is a block 186 which the Examiner may be thinking represents another federated datastore, or a search gateway. After carefully studying this embodiment, Applicant respectfully submits that such a reading would be incorrect in view of column 13, lines 1-7 of Subramaniam:

In the case of applications requiring very large memory or computing cycles, the job may be farmed out to a super-computing center 186 directly through the Web-page interface.

Thus, block 186 of Subramaniam is not a data source and not a data repository. It is only a supplemental processing center for processing query results. No queries are sent to supercomputer 186, only results.

Thus, the embodiment of Subramaniam's Fig. 14 also lacks the above-identified requirements of independent claim 1.

For all of the foregoing reasons, Applicant respectfully submits that Subramaniam cannot reasonably be said to anticipate claim 1 within the meaning of 35 U.S.C. § 102. Applicant therefore respectfully requests the Examiner to withdraw this rejection of independent claim 1 and its dependent claims 2, 3, 6, and 7.

Independent claims 8 and 15 contain requirements substantially similar to those already mentioned above with respect to independent claim 1. Thus, the comments made above are respectfully submitted to apply with equal force to the rejection of claims 8 and 15. For substantially the same reasons, therefore, Applicant respectfully requests the Examiner to

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withdraw this rejection of independent claims 8 and 15, and also their respective dependent claims 9, 10, 13, 14 and 16, 17, 20, 21.

The rejection under 35 U.S.C. §103(a).

The Examiner rejected claims 4-5, 11-12, and 18-19 under 35 U.S.C. § 103(a) as being unpatentable over Subramaniam et al. (US 5859972) in view of Sarkar (US 6012067).

All of these rejected claims depend from the independent claims discussed above, namely, independent claims 1, 8, or 15. As has been pointed out, each of these independent claims patentably distinguishes over Subramaniam itself in view of the requirements for:

receiving a request for data at a federated data source; and

from the federated data source, retrieving data from:

one or more terminal data repositories,
one or more other federated data sources, and
one or more search gateway data sources;

Although Sarkar was not relied on by the Examiner to meet the above requirements, Applicant now considers whether Sarkar might compensate for the noted deficiencies of Subramaniam in view of the rejection being made over the combined teachings of Subramaniam and Sarkar.

After reviewing Sarkar, Applicant finds no teaching or suggestion that would have enabled the artisan of ordinary skill to have modified Subramaniam to achieve the method as set forth in claim 1. Additional, untaught modifications would still have been necessary.

Applicant therefore respectfully submits that, even taken together for what they would have meant to an artisan of ordinary skill, the combined teachings of Subramaniam and Sarkar fail to meet the above-identified requirements of independent claim 1. Therefore, these two references would not have (and could not have) led such a person to have achieved the method of claim 1, much less that defined by its dependent claims 4 and 5.

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The same points apply to independent claims 8 and 15, and also their respective rejected claims 11-12 and 18-19.

For all of these reasons, therefore, Applicant respectfully requests the Examiner to withdraw this rejection of claims 4, 5, 11, 12, 18, and 19.

Conclusion and request for telephone interview.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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